

Parental and Peer Influences on Food Neophobia Among Young Adults: A Quantitative Analysis of Consumption Trends [†]

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Abstract

This study aimed to investigate how and to what extent parental and peer influences relate to food neophobia in young adults. Using a cross-sectional online survey of 320 participants aged 18–25, we applied multiple statistical analyses. Parental dietary openness showed a negative association with neophobia, while peer social engagement exhibited even stronger negative association. Segmentation identified low, moderate, and high neophobia profiles with distinct responsiveness to exposure opportunities and safety information. Findings indicate that peer-led settings, coupled with concise information on safety and provenance, can reduce neophobic barriers. Targeted strategies aligned to segment profiles may offer a pathway to broaden dietary variety.

Keywords: food neophobia; parental influence; peer influence; consumer behavior; young adults

1. Introduction

Food neophobia has long been associated with narrower dietary repertoires and persistent avoidance of unfamiliar foods, with implications for nutritional adequacy and innovation uptake [1]. Early exposure and parental modeling influence children's preferences, yet during the transition to adulthood, social identification processes and peer norms increasingly shape their behavior [2,3]. Despite the rich literature on childhood determinants, the comparative weight of parental versus peer influences during emerging adulthood remains underexplored [3–5]. The study focuses on young adults aged 18–25 and examines: (i) to what extent parental dietary behaviors relate to current levels of food neophobia; (ii) how peer social influences correlate with neophobic tendencies; and (iii) whether social influence exerts a stronger predictive effect on food neophobia than parental influence. The contribution is twofold. First, it offers a direct, systematic comparison of these influences within a single quantitative analytical framework, enabling their relative effects to be assessed consistently. Second, it situates the findings within contemporary Southern European cultural contexts, where longstanding family traditions and shared dining practices intersect with rapidly evolving peer dynamics and digitally mediated social communities.



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Research Questions and Hypotheses

Recognizing the influence of family socialization and peer dynamics, our study examines the comparative strength and nuances of parental versus peer impacts on food neophobia in young adults [6]. We were guided by the following research questions (RQs):

- RQ1: To what extent do parental dietary behaviors influence food neophobia among young adults?
- RQ2: How do peer social influences relate to food neophobia in this demographic segment?
- RQ3: Which factor (parental or peer) is the stronger predictor of food neophobia in young adults?

Correspondingly, we evaluated the following hypotheses (H):

- H1: Parental openness to trying new foods is negatively associated with young adults' food neophobia [7].
- H2: Parental encouragement of exposure to diverse foods during childhood is associated with lower food neophobia in young adulthood [8].
- H3: Peer-group openness to novel food experiences is negatively associated with food neophobia [3,9].
- H4: Greater engagement in socially driven eating environments (e.g., group dining, events featuring diverse foods) is associated with lower food Neophobia [10,11].
- H5: Peer influences have a stronger predictive capacity for food neophobia than parental influences.

2. Materials and Methods

2.1. Study Design and Participants

We conducted a cross-sectional, online questionnaire study with a final analytic sample of 320 young adults aged 18–25 years. Recruitment proceeded through institutional mailing lists, student and community groups and open calls circulated on social media channels, yielding a convenience sample appropriate for exploratory multivariate analyses in this age segment. Eligibility criteria included being within the specified age range and providing informed consent. Participation was voluntary and responses were collected anonymously; no personal information was obtained beyond basic demographic variables. The study posed minimal risk to participants, and formal ethical review was waived, as indicated in the Institutional Review Board Statement. The final sample size was sufficient for the planned analyses, supporting stable factor structures, adequate observations for cluster-based segmentation, and acceptable statistical power for multiple regression models with a limited number of predictors and covariates.

2.2. Measures

2.2.1. Food Neophobia

Food neophobia was measured using the Food Neophobia Scale (FNS), a widely applied instrument in adult populations. Items were rated on a Likert-type response format, with higher scores indicating greater reluctance to try unfamiliar foods. Standard scoring procedures were followed, including reverse-coding of negatively keyed items and computation of a composite score, and internal consistency was assessed with Cronbach's alpha.

2.2.2. Parental Dietary Openness

Perceived parental influence was operationalized through items adapted from established exposure and modeling constructs, capturing the extent to which parents encouraged tasting, provided variety at home, and signaled openness toward unfamiliar foods during

upbringing. Responses were recorded on a Likert-type scale and aggregated to a composite index. Higher values reflect greater perceived parental openness.

2.2.3. Peer Social Influence

Peer influence captured both descriptive and injunctive norms in the respondent's close peer group regarding novel foods, as well as engagement in social eating contexts in which unfamiliar cuisines are likely to be encountered (e.g., group dining, shared tasting events). Items were combined to form a composite indicator such that higher scores denote stronger peer openness and social exposure to novel foods.

2.2.4. Controls

Demographic covariates included gender, educational attainment, and personal income. All instruments underwent forward–backward translation and cultural adaptation by bilingual reviewers to ensure conceptual equivalence; a brief cognitive review with target-age participants ensured clarity and relevance. Internal consistency thresholds were set a priori at $\alpha \geq 0.50$.

2.3. Procedure and Analysis

Data were screened for completeness and patterned responses; multivariate analyses used complete cases. We conducted an exploratory factor analysis using principal component extraction with varimax rotation to examine latent structure and confirm dimensionality. Sampling adequacy and sphericity were evaluated with the Kaiser–Meyer–Olkin (KMO) index and Bartlett's test. Factor retention considered eigenvalues greater than one and scree plot inspection; item retention emphasized salient primary loadings (≥ 0.40) with minimal cross-loadings. Cronbach's alpha was computed for all multi-item scales.

To identify actionable consumer segments, we applied K-means clustering to standardized component or scale scores [7]. The number of clusters was selected by triangulating the elbow criterion, silhouette diagnostics, and solution interpretability. Cluster stability was examined through multiple random starts and inspection of profile consistency.

To estimate the unique and comparative associations of parental and peer factors with food neophobia, we fitted multiple linear regression models with the FNS composite as the dependent variable, entering parental openness and peer influence as focal predictors and demographics as controls. Model assumptions were evaluated through residual diagnostics, and variance inflation factors were inspected for multicollinearity. We report standardized coefficients with two-tailed tests and heteroskedasticity-robust standard errors ($\alpha = 0.05$). Analyses were conducted in IBM SPSS Statistics (version 29).

3. Results

3.1. Factor Structure

Three components emerged and explained 69.48% of the total variance (Table 1): Component 1: Openness to New Foods; Component 2: Parental Dietary Influence; Component 3: Peer Social Influence. Scale reliabilities met or exceeded conventional thresholds ($\alpha \geq 0.50$).

Table 1. Exploratory Factor Analysis.

Component	Description	Eigenvalue	Variance Explained (%)
1	Openness to new foods	3.505	35.05
2	Parental dietary influence	2.387	23.87
3	Peer social influence	1.057	10.57
Total			69.49

3.2. Consumer Segments

Cluster analysis yielded three segments with distinct profiles: Low Neophobia (9.1%, $n = 29$), Moderate Neophobia (75.3%, $n = 241$), and High Neophobia (15.6%, $n = 50$). Segment differences were reflected in component score means, with Low-Neophobia respondents reporting higher openness and stronger peer engagement, and High-Neophobia respondents reporting lower openness and weaker peer engagement (Table 2).

Table 2. Consumer Segments and Characteristic Profiles.

Segment	Share (%)	n	Profile Summary
Low Neophobia	9.1	29	High openness; strong peer/parental engagement
Moderate Neophobia	75.3	241	Mid-level openness; mixed peer/parent effects
High Neophobia	15.6	50	Low openness; weak peer/parental engagement

3.3. Regression Findings

Parental dietary openness was negatively associated with food neophobia ($\beta = -0.28$, $p < 0.01$) after adjusting for demographics (gender, education, income). Peer engagement exhibited a stronger negative association ($\beta = -0.45$, $p < 0.001$). Comparative models confirmed the larger standardized effect of peer influence relative to parental influence when entered jointly (Table 3).

Table 3. Food Neophobia Scale (FNS) Predictors.

Predictor	β	p-Value
Parental dietary openness	−0.28	<0.01
Peer social engagement	−0.45	<0.001

4. Discussion

The results indicate that while parental modeling remains relevant in young adulthood, peer contexts constitute the more influential factor of food neophobia, aligning with theories of social identity and normative influence during the transition to independence [4,12,13]. Practically, interventions that leverage peers, such as organized group tastings, campus-based food events, or social-media-coupled dining experiences, are likely to yield stronger reductions in neophobic tendencies than parent-anchored messaging. The resulting segmentation provides practical entry points for targeted intervention strategies. Individuals with low levels of neophobia may function effectively as peer advocates, facilitating diffusion through social influence. Those exhibiting moderate neophobia appear amenable to incremental encouragement, particularly through low-risk exposure combined with social endorsement. In contrast, highly neophobic individuals are more likely to respond to gradual, staged approaches that foreground safety, familiarity, and reassurance.

4.1. Cultural Context and External Validity

Although in Southern European cultures, family traditions and convivial meals are salient, parental food socialization provides the early scaffolding of preferences, as young adults navigate university life and urban social scenes, peer groups and digitally mediated communities often set the immediate norms for experimentation. This cultural pattern helps explain the observed effect sizes and suggests that peer-centric strategies may be

particularly potent in Mediterranean contexts that combine strong family legacies with vibrant social dining [10].

4.2. Implications for Policy Makers and Marketers

For nutrition education, embedding tasting opportunities within peer activities may normalize trials of unfamiliar foods. For marketers, designing experiences that signal social approval and reduce perceived risk, through menu framing, guided tastings, ambassador programs, and credible information about safety, can shift hesitant segments toward trial and adoption. Policymakers may support community-level programs that couple cultural heritage with gradual introduction of novel and sustainable foods.

5. Limitations and Future Research

The convenience, online sampling frame limits generalizability and may under- or over-represent specific subgroups. Future work should employ longitudinal and field-experimental designs to assess durability and directionality of effects, incorporate behavioral indicators of tasting and purchase, and examine potential mediators and moderators, including perceived risk, habit strength, personality traits, and technology-related attitudes. The cross-sectional design precludes causal inference, longitudinal and experimental field studies are needed to test how peer-based interventions reduce neophobia over time. Measurement relied on self-reports, multi-method approaches incorporating behavioral tastings and purchase data would strengthen validity. Finally, while we controlled for demographics, additional psychological and contextual variables (e.g., personality traits, technology attitudes, digital word-of-mouth exposure) could refine explanatory power and reveal moderated pathways.

6. Conclusions

This study examined how parental dietary modeling and peer influences relate to food neophobia in emerging adulthood and indicates that peer-related dynamics are the more influential factor of reluctance to try unfamiliar foods. Beyond the comparative findings, the segmentation analysis identified distinct participant profiles corresponding to varying degrees of openness and social engagement. These differences indicate that uniform intervention approaches are unlikely to be effective and that strategies should instead be tailored to the observable heterogeneity in attitudes and behavioral patterns.

From a theoretical standpoint, the findings are consistent with perspectives that emphasize identity exploration and the growing salience of peer norms during the transition to adulthood, while also extending prior work on family socialization by showing that parental effects, though present, are comparatively attenuated in this life stage. By considering parental and peer influences within a single analytical framework and linking them to segmentable consumer profiles, the study contributes an integrated view that can inform contemporary models of food acceptance which recognize the roles of social identity, habitual routines, and perceived risk.

In practical terms, the evidence supports the design of peer-anchored interventions that create low-stakes, repeated opportunities to experience unfamiliar foods in settings where normative cues are visible and shared, such as campus activities, community tastings, and facilitated group dining. For educators and market practitioners, segment-sensitive approaches are advisable: individuals already open to novelty can serve as credible champions within their networks, those exhibiting moderate hesitation may benefit from structured choice architectures and guided tasting formats that normalize trial, and those with higher neophobia are more likely to respond to graded, stepwise exposure that reduce perceived risk, offer transparent information on safety and provenance, and allow gradual

progression in novelty. Policy initiatives aimed at encouraging healthier or more sustainable dietary patterns may therefore achieve greater impact when they incorporate peer mechanisms, both in-person and digitally mediated, rather than relying predominantly on parent-focused messaging.

Summarizing, peer contexts appear to shape food neophobia among young adults more strongly than parental modeling, and a combination of actionable segmentation with peer-centered delivery offers a practical pathway for educators, public health stakeholders, and market actors seeking to broaden dietary variety and facilitate the adoption of unfamiliar yet potentially beneficial foods.

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Abbreviations

The following abbreviations are used in this manuscript:

EFA	Exploratory Factor Analysis
PCA	Principal Component Analysis
K-means	K-means clustering algorithm
β	Standardized regression coefficient (beta)
α	Cronbach's alpha (scale reliability)
n.s.	Not significant
FNS	Food Neophobia Scale
FTNS	Food Technology Neophobia Scale
BFI-10	Big Five Inventory (10-item short form)
TPB	Theory of Planned Behavior
eWOM	Electronic Word-of-Mouth
IRB	Institutional Review Board
n	Number of participants

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